

REMARKS

The present application stands with claims 1-14 rejected under 35 U.S.C. §103(a) for obviousness over Klein in view of US 5,974,106 (Dupont). From the particular passages referred to it is taken that Klein is the reference "Frames Multiple Access For UMTS", IEE, pages 1-8, written by Ojanpera, Klein and Anderson. Since, however, a previous document cited by the Examiner was also referred to as "Klein", the document noted above will hereinafter be referred to as "Ojanpera" to avoid confusion with that previous document "Klein".

Claim 1

Claim 1 has been narrowed so as to further distinguish over the cited art. Basis for the amendment is provided by for example, page 29 lines 9 to 13, page 30 lines 3 to 5, Figures 13 and 16.

Amended claim 1 now additionally requires

 "providing user data from at least two users having the same data rate requirement;

 encoding said user data from the at least two users into a single RLC/MAC block;

 allocating at least one time slot of a TDMA frame to the RLC/MAC block; and

 transmitting at least a portion of the encoded RLC/MAC block in the allocated at least one time-slot such that it carries user data from each of the at least two users."

Neither Ojanpera nor Dupont appears to disclose or suggest these features. Accordingly, it is believed that amended claim 1 is patentable to the standard of 35 USC103 over the cited art.

Comments on Advisory Action

As regards the Examiner's comments in the Advisory action, it is respectfully submitted that Dupont must be read as it would be by the notional skilled reader. The fact Dupont relates to GSM can rightly have a direct bearing on what Dupont discloses to the skilled reader.

Furthermore, the applicants maintain the validity of their previously presented argument regarding the teaching of Dupont but believe their arguments over Dupont may now be rendered moot in view of the amendment to claim 1 discussed above. Nevertheless, that previously presented argument is repeated below for ease of possible reference and completeness.

Previously Presented Argument

It is respectfully submitted that the Examiner is incorrect regarding the disclosure of col.3 lines 17-18 of Dupont. It does not disclose a first data portion of a burst belonging to a first sender and a second data portion of the burst belong to a second sender. Interestingly, although Dupont column 3 lines 17 to 18 refers to data units 210 and 220, these reference signs are not indicated in Figure 2.

Looking at Dupont column 3 lines 13 to 19, the text states:

FIG.2 illustrates a frame/burst 200 structure for one embodiment of the invention. Each frame of a GPRS channel includes repeating time slots or subchannels, each time slot capable of carrying a communication burst. A first sender 102 transmits first data units (e.g., data units 210) and a second sender 108 transmits second data units (e.g., data units 220). One such burst is shown in expanded form as burst 201.

It is respectfully submitted that to the reader this passage would mean that the first data unit 210 takes a first slot in a frame and a second data unit 210

takes a second slot in the frame.

It follows that Dupont does not clearly or unambiguously disclose the principle of placing data units of two different users together in the same TDMA transmission burst. Furthermore, Dupont does not disclose or suggest any detail as to how that might be done.

Furthermore, reading on through Dupont, its column 3 lines 19 to 22 reads:

One such burst is shown in expanded form as burst 201. This GPRS data burst includes encoded data and a mid-amble training sequence, with synchronization flag bits 202 on either side of the synchronization sequence.

This passage refers to a GPRS data burst. GPRS bursts are known to only serve one user data per burst, a point on which supporting evidence can be provided should the Examiner consider it necessary.

On a further point, even assuming for the sake of argument (although we dispute this) that the Examiner's preliminary interpretation were true, namely that column 3 lines 17 to 18 of Dupont discloses a burst including data units of two users, significantly Dupont does not disclose or suggest how data for different users within a burst would be identified. This is an important point as it adds weight to the view that the skilled reader of Dupont would assume that a burst is occupied by data from a single user only.

In view of the above, it is respectfully submitted that claim 1 is patentable to the standard of 35 USC 103(a) over Ojanpera in view of Dupont.

The applicant's position as explained above is maintained.

The Examiner is incorrect as to his interpretation of Dupont generally, including column 3 lines 17 to 19 in particular, for the reasons as explained above.

Furthermore, the Examiner states "There is no doubt the Examiner's interpretation of Dupont's teaching is correct because further down in col.3, lines 50 to 58, Dupont gives a brief description of how a data message adapted into packet data message adapted into packet data units". Firstly, this statement is insufficiently reasoned to be fully understood. Secondly, column 3 lines 50 to 58 teaches nothing more than conventional MAC service data units SDU's being further formed into packet data units PDU's.

As regards the Examiner's argument based on Dupont column 3 lines 33 to 34 and lines 60 to 63, it is submitted that rate of communications instead vary in a channel because of (column 3 lines 49 to 50) "the bursty nature of most non-voice data".

Furthermore, Dupont column 3 lines 55 to 58 states:

"each of these SDUs being further formed into four packet data units (PDUs) each being multiplexed into its own burst period (i.e., time slot) of a four-burst burst group".

In other words, each packet (PDU) has its own time slot. Note also that there are four packets and four bursts. This teaches away from the present invention which requires "only data of a first user in a first data portion of a burst before the training sequence and only data of a second user in a second data portion of the burst after the training sequence".

This requirement of claim 1 that "only data of a first user in a first data portion of a burst before the training sequence and only data of a second user

in a second data portion of the burst after the training sequence" is also not disclosed by Ojanpera. Accordingly, it is respectfully submitted that claim 1 is patentable to the standard of 35 USC103(a) over Ojanpera in view of Dupont.

Dependent Claims


Dependent claims 2 to 14 are allowable not least on the basis that they each depend on an allowable independent claim 1.

Conclusion

For the reasons discussed above, each of the claims presently in the application is believed to be in a condition for allowance. Passage to issue of the subject application is therefore respectfully requested. Should the Examiner feel that the present application is not yet in a condition for allowance and that a telephone or personal interview would be helpful, he is invited to contact applicants' undersigned attorney at 908 582 7886.

Respectfully submitted,

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